# **Final Summary Overview**

# The National Survey of Teen Relationships and Intimate Violence (STRiV)\*

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The purpose of this project, the national Survey of Teen Relationships and Intimate Violence (STRiV), was to build the field's understanding of adolescent dating relationships, particularly those marked by adolescent relationship abuse (ARA). While definitions vary across the literature, for the purposes of this study we define ARA as physical, emotional, verbal, psychological, or sexual abuse perpetrated by an adolescent against another adolescent with whom they are in a dating/romantic relationship 1. The situational venue may be in person or via electronic means, in both public and private spaces, between current or past dating partners.<sup>2</sup> More specifically, this study was designed to produce nationally representative estimates of the prevalence of different forms of ARA among youth (ages 12-18), to document the characteristics of abusive relationships during adolescence, to assess ARA risk factors, and to situate these estimates within the environment of adolescents' key social relationships and communications. Based on STRiV data (late 2013), we developed a national portrait of the prevalence of varying categories of ARA victimization and perpetration, including levels of physical and emotional injury, and assessed how exposure to these forms of ARA vary by gender, age and other key demographic characteristics. We also identified specific conditional attitudes and dating relationship characteristics associated with ARA risk, and determined whether these pathways were uniquely gendered. Overall, with additional data collection underway under a second NIJ grant (2014-VA-CX-0065 - Longitudinal Follow-up in the National Survey for Teen Relationships and Violence), we continue to work toward our project goal to provide the necessary data to help the field understand and prevent ARA, with ongoing analyses of the STRiV data regarding ARA risk factors that provide opportunities for ARA prevention efforts sensitive to gender, developmental, and other characteristics. In this summary, we present the results from five papers (three published papers and two more under review).

#### PROJECT DESIGN AND METHODS

We conducted two waves of data collection for this grant: Baseline surveys of youth ages 12-18 and one parent/caregiver, and a similar youth survey administered one year later.

### **Data source**

Respondents to the STRiV study were recruited from the GfK/Knowledge Panel, a national household address-based probability sample (50,000+ members ages 18 and older) of the U.S (a full description of the online panel is

available at <a href="www.knowledgenetworks.com/knpanel/docs/KnowledgePanel(R)-Design-Summary-Description.pdf">www.knowledgePanel(R)-Design-Summary-Description.pdf</a>). From an address-based sampling (ABS) frame covering approximately 97% of U.S. households, randomly sampled households are invited to join KnowledgePanel through postal invitations (English and Spanish) and by telephone follow-up. Using dual sample frames, panel members are further recruited via listed and unlisted telephone numbers, telephone and non-telephone households, and cell phone only households, as well as households with and without Internet access.3 When recruited, sampled households not connected to the Internet are provided a netbook computer and free Internet service. The GfK panel represented a unique opportunity to cost effectively survey a large nationally representative group of youth and their parent/caregiver. The within-survey response rate for KnowledgePanel is on average 70%, comparing favorably to non-probability online panels (typically 2-16%).3 Methodological comparisons of the KnowledgePanel sample to random-digit-dialing (RDD) telephone samples highlight the strengths of KnowledgePanel's representative design.4-6 Several KnowledgePanel studies have addressed sensitive topics with adult and adolescent panel members.7-8 KnowledgePanel maintains a bibliography of peer-review publications using KnowledgePanel data.3

To assure national representativeness, we applied the KnowledgePanel statistical weights<sup>9</sup>; these weights are available in the archived dataset. The panel base weight takes into account a range of sampling and non-sampling error (e.g., non-response to panel recruitment and panel attrition). This panel base weight is then employed in a probability proportional to size (PPS) selection method for drawing sub-samples from KnowledgePanel. Using demographic and geographic distributions from the most recent monthly U.S. Census Current Population Survey as benchmarks, the GfK team conducted a sample-specific post-stratification process (applying an iterative raking procedure) to adjust for survey nonresponse and for any elements related to the study-specific sample design (such as subgroup oversamples of households with youth). The demographic variables used were gender, age, race/ethnicity, education, Census region, metropolitan area, and Internet access. Our weighting procedures resulted in a weighted sample distribution that approximates the 2010 U.S. Census estimates.

Among other areas such as confidentiality and privacy pledges, our recruitment letter informed the adult parent or caregiver (PCG) and the study youth that they were randomly selected to participate in a study of parents and their children, and that the purpose of the study was to reduce violence among young people, particularly in dating

relationships. Following standard survey and IRB protocols, recruited respondents were informed in advance and within the online survey that they could refuse to answer any questions or not participate at all. If the recipient PCG consented to participate, a web survey algorithm randomly chose an eligible child to participate in the study from the household (or if there was only one eligible child that child was selected). Next, the participating child and PCG received an invitation by e-mail to complete the surveys, which were presented sequentially with child assent required prior to child participation. Our team used an at-risk protocol to aid any respondents who requested a referral for help (toll-free telephone and online help was available).

#### Baseline surveys and subjects

The project started with the recruiting of a nationally representative sample of 5,105 households with at least one resident youth (age range 10 to 18) to complete a PCG baseline survey and a separate child (ages 10 to 18) survey online from October 2013 to January 2014. However, the 10 and 11 year-old youth were not asked certain ARA survey questions (e.g., items about sexual abuse in dating relationships) due to concerns raised by the legal counselors of the data collection agency (GfK) about asking potentially sensitive items of this age group. Therefore, the 10-11 year old youth are not reported on in this report, but this is a longitudinal study and they will become full members of the study when they become 12 years old.

GfK initially recruited 5,105 households to the study. Screening of these recruited households indicated that in some cases, the expected youth age 10-18 did not reside in the home and thus the household was ineligible for the study (ineligible rate of about 7%). Parent/caregivers were surveyed first, resulting in a baseline PCG sample of n= 2,645 (response rate 56%). At baseline, we collected the 2,354 completed youth surveys. Thus, the final dyadic sample (both PCG and youth responded to survey) response rate was 50%. The baseline 50% response rate is better than the typical industry response rates reported by Kohut and colleagues. Despite a steady decline in response rates over the last three decades<sup>11</sup>, particularly recently, 2,13 several recent studies have shown no meaningful association between response rates and response bias. Also, our analyses revealed no apparent patterns to survey non-participation. Panel demographic post-stratification weights were applied to adjust both for non-coverage of the U.S. population as well as participant non-response and missing data.

If the recipient parent or adult caregiver (PCG) consented to participate, a web survey algorithm randomly chose

an eligible child in that household to participate in the study. Next, the participating child and PCG received an invitation by e-mail to complete the surveys, which were presented sequentially with child assent required prior to child participation. For the youth survey, the PCG consent rate (for self and child participation) was 82.6%, and the child assent rate was 98.3%. Communications with the PCG stressed the importance of allowing the selected child to complete the survey privately. While the 40-minute youth survey was available in English or Spanish, few youth respondents selected the Spanish option (n=128, 5%) compared to the PCG (9.2% of the PCG surveys were done in Spanish). Households were provided a small (\$20) incentive for completing the baseline surveys through the GfK points system (redeemable for products or cash).

As seen in Table 1 (Appendix at end of document), based on our Wave 1 (baseline) survey, we observed that most of our sample was White (56%) or Hispanic (24%). About 13% of our sample was 12 years old, 44% was 13 to 15 years old, and 43% was 16 to 18 years old. About the half the sample was girls and the other half boys. Other background characteristics on the household for our sample are presented in Table 1 (Appendix).

## One year follow-up (Wave 2) survey

An abbreviated PCG survey and a similar youth survey were administered about one year later (October 2014 to May 2015) and included 1,471 parent-child dyads completing the Wave 2 survey (62.5% of the 2,354 original parent-child dyads). Each participating household was provided an incentive worth \$20 for completing the Wave 2 surveys.

#### Measures

Both the baseline and follow-up surveys were completed using a high-security web-based survey. The use of an online format for the national STRiV survey was appropriate for the target age group, who were generally well versed in computer use. The sensitive nature of the ARA survey also requires the utmost privacy and confidentiality. The secure web-based survey—through which questions are asked on a screen (similar to the audio-computer-assisted self-interviews of other adolescent surveys) rather than by a person—maximizes privacy. An online format avoided the introduction of bias due to interviewer gender and maximized flexible scheduling for survey completion.

Our key outcome measure was ARA which was asked (to increase recall) only for those who reported a current

or recent dating relationships ("daters", defined as having lasted for "at least a week"; inclusive of relationships defined by spending time together, seeing each other, or 'going out' together). Only youth in the subsample of daters were asked to report their ARA experiences for the specified relationship. We used a modified version of the Conflict in Adolescent Dating Relationships Inventory (CADRI) to capture the *prevalence* and *type* of ARA victimization and perpetration in the subpopulation of daters <sup>17</sup>. Our main modification was the inclusion of instructions for respondents to report whether the violent behaviors occurred in one specific relationship (their current or most recent dating relationship). CADRI items were summed to form separate measures of "any ARA" and, as subsets of that measure, sexual abuse, physical abuse, and psychological abuse in the reported adolescent dating relationships. The 62-item self-report scale measures overt and covert forms of violence both as a victim and a perpetrator, intimidation, and positive communication both expressed and experienced in dating relationships <sup>17</sup>.

Our other key outcome measure in the study was sexual harassment (SH). SH perpetration and victimization were measured using the validated American Association of University Women (AAUW) measures of SH, distinguishing incidences that occurred in-person from those that occurred online. SH is defined as unwelcome conduct of a sexual nature in person or through electronic means, which can include unwelcome sexual advances, requests for sexual favors, or other verbal, nonverbal, or physical conduct of a sexual nature.

As displayed in Figure 1 (Appendix), we had a core set of questions we included in the Wave 1 and Wave 2 surveys (indicated by a '1' or a '2'). The content of the PCG and youth surveys differed, except for an overlap on constructs measuring Youth's Exposure to Violence, Parent-Youth Relationship, Youth's Dating History and Disclosure; PCG and youth respondents answered different items measuring these constructs (highlighted as dual report constructs with green shading in Figure 1). The three published papers we have written asses various aspects of Figure 1 (Appendix), as do the other two papers we have under peer review. The full model in Figure 1 will not be assessed simultaneously until we complete waves 3 and 4 in our second NIJ grant, 2014-VA-CX-0065, supporting the STRiV cohort study.

In the Appendix, reflecting the theoretical model of Bell and Naugle, <sup>19</sup> we divide our presentation of the STRiV measures into <u>proximal antecedents</u> (mental health, delinquency, drug/alcohol use); <u>distal antecedents</u> (parental relationship quality, critical parenting, parental anger trait, parent's report on the youth's temperament, dating

relationship quality for youth daters, peer network characteristics, adolescent financial literacy, youth's exposure to violence, parent-youth relationship quality, and youth dating history); <u>immediate context</u> (items on alcohol/drug use at time of the incident and the events occurring prior to victimization incident such as hitting partner, yelling, etc.); <u>verbal rules</u> (parental attitudes about domestic violence, parent dating rules, youth conditional attitudes about violence, and youth's gender stereotypes/ mistrust, and gender roles); <u>ARA (CADRI)</u> and sexual harassment (AAUW measure) experiences, consequences (relationship outcomes and disclosure); and sociodemographic characteristics.

#### **DATA ANALYSIS**

The STRiV data were cleaned and recoded using SPSS 23.0. The data underwent standard cleaning and we used SPSS to remove errors/inconsistencies in the data and verified that the data values were correct and conformed to a set of rules. Errors were detected by checking skip patterns, using scatterplots, and histograms. The statistical software packages used in our analyses (SPSS 23.0, Mplus 6.0, and Stata 14) allow for the use of sampling weights, adjust for complex sampling, and handle missing data. In addition, Mplus can also address highly imbalanced dichotomous outcomes (e.g., % of young adults reporting any ARA), as well as manifest indicators of varying levels of measurement (i.e., nominal to continuous data).

## Descriptive/exploratory analyses of survey data

We examined the distribution of our data with and without our statistical weights and ran frequencies, measures of central tendency, and measures of dispersion with all the study variables. We used cross-tabulations, comparison of means, and correlations to begin our development of a national portrait of victims and perpetrators of ARA. We performed a variety of bivariate analyses on relevant background variables to determine whether there were statistically significant relationships between the principle antecedents of interest (conditional tolerance, relationship quality and peer characteristics) and the ARA outcome variables. We estimated correlation matrices to examine multi-collinearity between key covariates specified in our analytic models. Variables that were significant in our bivariate models were entered into later multivariate models.

#### Multivariate models

For some of the multivariate analyses, we used logistic regressions (both 'zero-order' and models controlling for a full complement of study covariates). We also empirically identified profiles of parent-child interactions using latent class analysis (LCA), an approach which divides the study population into a number of mutually exclusive and exhaustive subpopulations with similar response patterns.<sup>20,21</sup> We examined results in terms of what particular parenting profiles look like, the prevalence of these profiles, and how the parents' and youth's characteristics were related to these profiles by regressing class membership on covariates via multinomial logistic regression.<sup>22</sup> We also investigated the impact of class membership for four distal outcomes (conditional tolerance of violence against boyfriends and girlfriends, and victimization by and perpetration of adolescent relationship abuse) by modeling the distal outcomes as consequences of the latent class membership.

We conducted similar LCA analyses to identify co-occurrence patterns of different types of ARA victimization and perpetration as well as sexual harassment (SH) victimization and perpetration. Our LCAs yielded information on the number of profiles of ARA victimization and perpetration as well as SH victimization and perpetration present in our sample. We also investigated the particular profiles of co-occurrence in terms of patterns and prevalence. We conducted separate LCAs for two age groups (ages 12-15 and ages 16-18). Within each age group, gender effects were examined by regressing class membership on gender via multinomial logistic regression.<sup>22</sup>

#### **FINDINGS**

The findings for this study are reported in three peer reviewed papers<sup>23-25</sup> and two additional papers that are currently under peer review.<sup>26,27</sup> Below we highlight the key findings from these papers and refer the reader to these original publications for more details. The <u>first paper</u> presents a national portrait of ARA.<sup>23</sup> For 12-18 year old youth respondents (37% of the sample) reporting current- or past year dating, 69% reported lifetime ARA victimization (63% lifetime ARA perpetration).<sup>23</sup> Although psychological abuse was most common for these youth (over 60%), we also had substantial rates of sexual abuse (18%) and physical abuse victimization (18%), as well as 12% reporting perpetrating physical abuse and/or sexual abuse (12%).<sup>23</sup> Other than differences by age and gender, ARA rates were

consistent by race/ethnicity, geographic region, urbanicity, and household characteristics,\* highlighting the importance

of universal prevention programs.<sup>23</sup> Nevertheless, while the CADRI has been used and tested in many different populations,<sup>17</sup> we are not aware of any specific methodology study undertaken with the CADRI that demonstrates that scales of the CADRI are invariant across various demographic subgroups, and we have to look at this finding of general invariance cautiously.

Compared with youth aged 15 to 18, those 12 to 14 years old reported lower rates of psychological and sexual ARA victimization<sup>23</sup> and ARA perpetration rates.<sup>23</sup> We found no gender differences for ARA victimization but found that girls perpetrated more physical ARA than boys.<sup>23</sup> Girls aged 15 to 18 reported perpetrating moderate threats/physical violence at more than twice the rate of younger girls and 3 times the rate compared with boys aged 15 to 18; girls aged 15 to 18 reported perpetrating more than 4 times the rate of serious psychological abuse than boys 15 to 18.<sup>23</sup> Next, these data document the significant overlap and positive correlation between ARA victimization and perpetration.<sup>23</sup> For example, 84% of any ARA victims also perpetrated ARA.<sup>23</sup> We found that correlations between ARA victimization and perpetration and perpetration ranged from .30 to .86, depending on which type of ARA (e.g., sexual ARA) was examined.<sup>23</sup>

The STRiV estimates of ARA victimization exceed rates found in all the other national ARA victimization studies by a wide margin despite the fact that STRiV measures any ARA experience only within the current or recent relationship rather than a broader lifetime measure. The high school-based YRBS found a rate of 9.4% for physical ARA and 8% for forced sexual relations.<sup>28</sup> Methodological differences may partially account for differences in estimates. The YRBS, which does not survey youth who have dropped out of school, includes only two global items and does not measure psychological abuse. Similarly, much lower rates of ARA have been found in the NatSCEV, 6% among youth ages 14-17 based on one item covering hitting/slapping;<sup>29</sup> the National Survey of Adolescents, 2% among youth 12-17 covering serious and/or injurious assaults;<sup>30</sup> NCVS, 9% among youth 12-16, with items framed in terms of criminal behavior;<sup>31</sup> and Add Health, 32% for any psychological, physical and threats of physical ARA and

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40% for forced sexual relations.<sup>32</sup> However, the local and regional studies using more detailed measures have reported ARA rates closer to the STRiV estimates, with about 50-60% of teens reporting ARA victimization.<sup>31,33-36</sup>

For the <u>second paper</u>, LCAs were applied to investigate whether there were distinguishable parenting profiles based on six measures of parent-youth relationship and interactions, with youth's attitudes about abusive dating behavior and both perpetration and victimization examined in a follow-up survey as distal outcomes (n=1,117 parent-youth dyads).<sup>24</sup> A three-class model — a "Positive Parenting" class, a "Strict/Harsh Parenting" class, and a "Disengaged/Harsh Parenting" class — was uncovered to best represent the data.<sup>24</sup> The selected LCA model was conditioned on parents' (anger trait, relationship quality, attitudes about domestic violence) and youth's (prior victimization and perpetration) covariates, controlling for parent's gender, ethnicity, income, marital status, and youth's age and gender.<sup>24</sup> Youth in the "Positive Parenting" class were significantly less likely one year later to be tolerant of violence against boyfriends as well as less likely to perpetrate ARA or to be a victim of ARA.<sup>24</sup>

For the third paper, we examined whether financial behaviors impact the use of violence in adolescent dating relationships. More specifically, we examine associations between requests for money lending, economic control/influence, financial socialization and ARA among a large, diverse sample of male and female youth.<sup>25</sup>
Findings suggest that adolescent financial behaviors are associated with heightened risk of moderate and serious threats/physical violence perpetration and victimization, net of traditional predictors.<sup>25</sup> Specifically, the respondent's experiences of being asked to lend a partner or an ex-partner money were positively associated with adolescent relationship abuse, controlling for other factors.<sup>25</sup> Furthermore, dynamics of economic control/influence were positively associated with adolescent relationship abuse at the bivariate level and appeared to form part of a more general pattern of controlling behaviors within adolescent dating relationships.<sup>25</sup> Our recommendations are that financial socialization has the potential to help adolescents establish relationship boundaries and make healthy decisions with respect to lending money in the relationship context.<sup>25</sup> Also, those operating ARA interventions should consider including modules on lending money to partners to address this risk factor for ARA.<sup>25</sup>

For the <u>fourth paper</u> (under peer review), we explored the effects of Wave 1 rates of youth tolerance for ARA and friendship group structural and behavioral factors on Wave 2 ARA perpetration. Conditional tolerance of hitting boyfriends was found to be positively related to ARA perpetration in the absence of friendship characteristics.<sup>26</sup>

Daters who report a recent discussion of a problem with friends and girls who named all-girl friend network groups were more likely to report perpetrating ARA.<sup>26</sup>

For the <u>fifth paper</u> (under peer review), we explored the relationship between SH and ARA. We identified cooccurrence patterns of different types of ARA victimization and perpetration as well as SH victimization and
perpetration using latent class analysis.<sup>27</sup> The sample, in two age groups, is limited to respondents in a current or
past-year dating relationship (n=271 for ages 12-15 and n=396 for ages 16-18) and found that a three-class model
best represented the overlap of SH and ARA data for both age groups ("Low Abuse," "High Abuse," and
"Psychological Only"), with differences in class prevalence and class profiles between the two groups.<sup>27</sup> Results also
indicate that SH tends to co-occur particularly with psychological ARA victimization and perpetration, especially for
younger youth (i.e., when SH is high we found psychological ARA victimization and perpetration to be high).<sup>27</sup>

#### IMPLICATIONS FOR CRIMINAL JUSTICE POLICY AND PRACTICE IN THE U.S.

STRiV has helped advance the field of ARA research by providing the first comprehensive national portrait dedicated specifically to ARA, using detailed measures of ARA and covering both perpetration and victimization. The STRiV national portrait of ARA can begin to help policymakers identify the resources needed to combat ARA and to whom to target those resources. STRiV has already helped document the ubiquity of the problem of ARA across a full range of demographic subgroups of youth in the US. Based on the STRiV national estimates and 2012 U.S. Census data, total ARA victimization rates equate to a conservative estimate that 25 million U.S. adolescents are ARA victims (23 million for ARA perpetration).<sup>23</sup> With over two thirds (69%) of the youth respondents self-reporting ARA victimization (ARA perpetration 63%), the STRiV estimates exceed rates found in all the other national ARA victimization studies by a wide margin.\* We further observed that 84% of the ARA victims also reported perpetrating ARA.<sup>23</sup> The findings from this study suggest that when working with youth in prevention services, interventions

<sup>\*</sup> For example, the YRBS has rates of physical ARA of 9.4% and 8% for forced sexual relations (Centers for Disease Control and Prevention, 2012c), the NatSCEV has rates of 6% among youth aged 14 to 17 based on one item covering hitting/slapping (Finkelhor, Turner, Ormrod, & Hamby, 2009); the National Survey of Adolescents, 2% among youth 12 to 17 covering serious and/or injurious assaults (Wolitzky-Taylor et al., 2008); and Add Health, 32% for any psychological, physical, and threats of physical ARA and 40% for forced sexual relations (Halpern et al., 2009).

should not be designed for monolithic groups of "pure" victims or perpetrators and take into account that some victims are also perpetrators and vice versa. Also, our finding that girls 15 to 18 years old reported some of the highest ARA perpetration rates suggest that the field's prevention messaging might not be reaching this group and needs to be modified. More generally, we have shown that the STRiV platform can help improve the knowledge base for developing ARA interventions, which has generally been limited.

STRiV results highlight the importance of parenting styles for youth's tolerance of physical abuse of boyfriends and for the perpetration of ARA. Our results were consistent with a large body of research showing that parenting matters and in some ways may contribute to youth's exposure to ARA.<sup>24</sup> Our results underscore the ongoing important challenge of improving the quality of parent-child relationships to address ARA. Also, parents are advised to actively address the conflicts in their own intimate relationships as an example for their child and to seek resources that support their own mental health to support positive parenting skill development.<sup>24</sup>

STRiV results suggest that ARA interventions also need to include attention to caring behaviors exhibited by youth such as the practice of lending money to a partner. Many of the evidence-based ARA interventions do not have modules or subtopics on the role of lending money to partners and interventions should start to consider at least integrating examples of problematic instrumental support into their activities.<sup>25</sup> Finally, parents and other adults may play an important role in fostering teens' healthy financial behaviors, with teens benefitting from specific communications on how to negotiate financial matters in their relationships and establish healthy boundaries.<sup>25</sup>

STRiV results highlight the importance of addressing tolerance of ARA with prevention messaging that recognizes the justifications youth might use to rationalize violent behavior regardless of dating partner gender.<sup>26</sup> ARA perpetration may fruitfully be reduced by targeting conditional tolerance for violence particularly against male partners within female friendships groups.<sup>26</sup> Further, in addition to incorporating these findings into training initiatives for those who work with adolescents on potential warning signs of ARA involvement, further consideration of the potential for targeting ARA education within female friend groups is warranted.<sup>26</sup> Specifically, it may be constructive to the close friends of dating adolescents to learn more about preventing ARA through bolstering their capacity to provide constructive peer support or mentoring and their confidence in the effectiveness of intervening themselves or

referring a friend to supportive adults.<sup>26</sup> This paper also provide a foundation for a deeper study examining fully saturated egocentric networks and their role in affecting ARA rates.

STRiV findings suggest that ARA prevention efforts should include activities to address SH.<sup>27</sup> Also, SH prevention programs, as well as youth who are dating (especially younger teens), should recognize that SH may co-occur with dating behavior.<sup>27</sup> Universal prevention programs should address the overlap of SH and ARA victimization and perpetration in young relationships, with selective and indicated efforts to target specific groups.<sup>27</sup>

Overall, we have learned much from the STRiV program of research related to the extensive prevalence of ARA and we have learned of new risk factors for ARA (e.g., financial literacy). Nevertheless, our study findings need to be considered within context of our recognized study limitations.<sup>23</sup> First, the STRiV data are subject to the usual limitations of self-report surveys (e.g., telescoping of problems into the study timeframe). Next, our measurement of sexual abuse was limited to four CADRI items due to our wide age range and more than four items in this area might have been viewed as inappropriate by the parents of our youth respondents.<sup>23</sup> Also, like others researchers in this area, we measured ARA by asking about specific acts, but did not capture intensity of or motivations for specific incidents.<sup>23</sup> We also did not make a distinction between ARA acts of offense or defense. Although there have been calls for more ARA contextual research, in a short national survey it is not feasible to gather such detailed data.<sup>23</sup> However, we used standard instrumentation to generate this national estimate and limited measurement to incidents that occurred within a current- or past-year dating relationship.<sup>23</sup> Thus, STRiV estimates are more conservative than other full lifetime measures of ARA based on the CADRI.<sup>23</sup> The STRiV program is ongoing through a second grant from NIJ (2014-VA-CX-0065 - Longitudinal Follow-up in the National Survey for Teen Relationships and Violence) and we will continue to update our national prevalence estimates, identify evolving risk factors for ARA and be able to examine the natural trajectories of ARA as our sample ages into young adulthood.

# Appendix

**Table 1:** Description of the sample (n=1,804 youth).

Ethnicity of parents		Age, gender, and dating status of youth (mean=15.02 and median= 15)	
White-Non-Hispanic	56.1%	12	12.6%
Black-Non-Hispanic	12.2%	13	15.9%
Hispanic	24.3%	14	12.5%
Other, Non-Hispanic	3.4%	15	15.6%
2+ Races, Non-Hispanic	4.0%	16	14.6%
		17	17.0%
Parent's education		18	11.8%
Never graduated high			
School	13.6%		
High School	27.0%	Girls	49.9%
Some college	29.9%	Boys	50.1%
4-year college degree or >	29.5%		
		Current or past year dating	37.0%
Location of residence			
South	36.2%	Household characteristics	
West	25.2%	Median household income	\$67,500
Midwest	22.6%	Household size (mean & median)	4.14 & 4
Northeast	16.1%	Below poverty rate	15.85%
		Above \$100,000 household income	25.6%
Urban	86.3%		
Non-urban	13.7%	Household residence	
		Owned residence	69.9%
Access to the Internet	79.7%	Renting	28.6%
		No payment	1.5%

Verbal Rules **Proximal Antecedents/Motivating Factors** Parent Attitudes about Domestic Violence (1) Mental Health (1,2) Delinquency (1,2) Parent Dating Rules (1) Drug/alcohol use (1,2) Youth's Conditional Attitudes about Violence (1,2) Youth's Gender Stereotypes/Mistrust (1,2) **Distal Antecedents** Parental Relationship Quality (1) Critical/Harsh Parenting (1) Parent's Anger Trait (1) Youth Temperament (1) **ARA Experience** Consequences Victimization (1,2) Dating Relationship Quality (1,2) Perpetration (1,2) Relationship Outcome (1,2) Peer Network Characteristics (1,2) Financial Literacy (1,2) SH Experience Disclosure (1,2) Youth's Exposure to Violence (2) In-Person & Online Parent-Youth Relationship (1, ) Victimization (1,2) Youth's Dating History (1,2) Perpetration (1,2) Immediate Context Parent Report Alcohol/druguse (at time of incident; 2) Key Youth Report Events occurring prior to victimization incident (hitting partner, yelling, etc.; 2) **Dual Report** 

Figure 1: Study Measures for Wave 1 and 2 for Parent and Youth Respondents

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